



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-4212; Directorate Identifier 2015-NM-010-AD]

RIN 2120-AA64

Airworthiness Directives; BAE Systems (Operations) Limited Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all BAE Systems (Operations) Limited Model BAe 146 series airplanes and Model Avro 146-RJ series airplanes. This proposed AD was prompted by reports of cracking of the main fitting of the nose landing gear (NLG) and a determination that a new safe-life limitation for affected NLG main fittings has not been mandated. This proposed AD would require replacing affected NLG main fittings that have exceeded the safe-life limitation with a new or serviceable fitting. We are proposing this AD to prevent collapse of the NLG, which if not corrected, could lead to degradation of direction control on the ground or an un-commanded turn to the left, and a consequent loss of control of the airplane on the ground, possibly resulting in damage to the airplane and injury to occupants.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact BAE Systems (Operations) Limited, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone +44 1292 675207; fax +44 1292 675704; email RAPublications@baesystems.com; Internet <http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-4212; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except

Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1175; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2015-4212; Directorate Identifier 2015-NM-010-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2012-0191R1, dated November 6, 2012 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all BAE Systems (Operations) Limited Model BAe 146 series airplanes and Model Avro 146-RJ series airplanes. The MCAI states:

Several occurrences of the aeroplane’s Nose Landing Gear (NLG) Main Fitting cracking have been reported. Subsequently in different cases, NLG Main Fitting crack lead to collapsed NLG, locked NLG steering and an aeroplane’s un-commanded steering to the left.

Cracks in the NLG Bell Housing are not detectable with the NLG fitted to the aeroplane and are difficult to detect during overhaul without substantial disassembly of the gear.

This condition, if not corrected, could lead to degradation of directional control on the ground or an un-commanded turn to the left and a consequent loss of control of the aeroplane on the ground, possibly resulting in damage to the aeroplane and injury to occupants.

Prompted by these findings, BAE Systems (Operations) Ltd issued Inspection Service Bulletin (ISB) 32-186 (hereafter referred to as the ISB) to introduce a new safe life of 16,000 flight cycles (FC) for certain NLG main fittings, having a Part Number (P/N) as identified in Paragraph 1A, tables 1, 2 and 3 of the ISB.

To correct this unsafe condition, EASA issued [EASA] AD 2012-0191 to require implementation of the new safe-life limitation for the affected NLG main fittings and replacement of fittings that have already exceeded the new limit.

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You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-4212.

Related Service Information under 1 CFR part 51

BAE Systems (Operations) Limited has issued Inspection Service Bulletin ISB.32-186, dated April 12, 2012. This service information describes procedures for determining the compliance times for replacing the NLG main fittings. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

Related Rulemaking

On August 4, 2014, we issued AD 2014-16-18, Amendment 39-17942 (79 FR 51234, August 28, 2014). AD 2014-16-18 requires revising the maintenance program by incorporating a new safe-life limitation for the NLG main fitting on all BAE Systems (Operations) Limited Model BAe 146 series airplanes and Model Avro 146-RJ series airplanes. Since we issued AD 2014-16-18, Amendment 39-17942 (79 FR 51234, August 28, 2014), we have determined that the new safe-life limitation for affected NLG main fittings has not been mandated because the safe-life limitation was not incorporated in Subject 05-10-15, Aircraft Equipment Airworthiness Limitations, of Section 05-10,

Time Limits, of Chapter 05, Time Limits/Maintenance Checks, of the BAE Systems (Operations) Limited BAe 146 Series/Avro 146-RJ Series Aircraft Maintenance Manual, Revision 108, dated September 14, 2012 (which was referred to as the appropriate source of service information for incorporating the safe-life limitation into the maintenance or inspections program). Therefore, the FAA has determined that it is necessary to require the replacement of NLG main fittings that have exceeded the safe-life limitation with a new or serviceable fitting.

FAA's Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

We estimate that this proposed AD affects 4 airplanes of U.S. registry.

We also estimate that it would take about 36 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost \$81,000 per product. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$336,240, or \$84,060 per product.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

BAE Systems (Operations) Limited: Docket No. FAA-2015-4212; Directorate Identifier 2015-NM-010-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to BAE Systems (Operations) Limited Model BAe 146-100A, -200A, and -300A airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A airplanes; certificated in any category, all models, all serial numbers.

(d) Subject

Air Transport Association (ATA) of America Code 05, Time Limits/Maintenance Checks.

(e) Reason

This AD was prompted by reports of cracking of the main fitting of the nose landing gear (NLG) and a determination that a new safe-life limitation for affected NLG main fittings has not been mandated. We are issuing this AD to prevent collapse of the NLG, which if not corrected could lead to degradation of direction control on the ground or an uncommanded turn to the left, and a consequent loss of control of the airplane on the ground, possibly resulting in damage to the airplane and injury to occupants.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Repetitive Replacement of Nose Landing Gear (NLG) Main Fitting

At the applicable compliance time specified in paragraphs (g)(1) through (g)(4) of this AD: Replace each affected nose landing gear (NLG) main fitting, having a part number (P/N) as identified in paragraph 1.A, tables 1., 2., and 3. of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.32-186, dated April 12, 2012, in accordance with the Accomplishment Instructions of that BAE Systems (Operations)

Limited Inspection Service Bulletin ISB.32-186, dated April 12, 2012. Thereafter, before the accumulation of 16,000 flight cycles on any affected NLG main fitting having a part number as identified in paragraph 1.A, tables 1., 2., and 3. of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.32-186, dated April 12, 2012, replace each affected nose landing gear (NLG) main fitting, in accordance with the Accomplishment Instructions of that BAE Systems (Operations) Limited Inspection Service Bulletin ISB.32-186, dated April 12, 2012.

(1) For NLG main fittings that have accumulated 29,000 flight cycles or more since first installation on an airplane: Within 12 months after the effective date of this AD.

(2) For NLG main fittings that have 20,000 flight cycles or more but less than 29,000 flight cycles since first installation on an airplane: Within 24 months after the effective date of this AD.

(3) For NLG main fittings that have 16,000 flight cycles or more but less than 20,000 flight cycles since first installation on an airplane: Within 36 months after the effective date of this AD.

(4) For NLG main fittings that have accumulated less than 16,000 flight cycles since first installation on an airplane: Before accumulating 16,000 flight cycles since first installation on an airplane or within 36 months after the effective date of this AD, whichever occurs later.

(h) Parts Installation Limitation

As of the effective date of this AD, no person may install an NLG main fitting

having a part number identified in paragraph 1.A., Tables 1., 2., and 3., of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.32-186, dated April 12, 2012, unless that fitting is in compliance with the requirements of this AD.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1175; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or BAE Systems

(Operations) Limited's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(j) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency (EASA) Airworthiness Directive 2012-0191R1, dated November 6, 2012, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-4212.

(2) For service information identified in this AD, contact BAE Systems (Operations) Limited, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone +44 1292 675207; fax +44 1292 675704; email RApublications@baesystems.com; Internet <http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on October 30, 2015.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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